UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,634	06/15/2001	Clifford Vernon Harris	ARC920010029US1	2231

23334 7590 06/27/2005

FLEIT, KAIN, GIBBONS, GUTMAN, BONGINI
& BIANCO P.L.
ONE BOCA COMMERCE CENTER
551 NORTHWEST 77TH STREET, SUITE 111
BOCA RATON, FL 33487

EXAMINER	
BLACK, LINH	

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/882,634	HARRIS ET AL.	
	Examiner	Art Unit	
	LINH BLACK	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-32* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-6, 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Vedula et al. (US 2005/0015732).

1. Vedula et al. anticipated the independent claims 1, 28 by the following: (in the specification, page 7, 1st paragraph, Applicants state that "datasets comprise data stored according to a data schema form for the respective data source and/or data target or destination.")

receiving a dataset, comprising a set of data elements with corresponding data values, from a source data system – fig. 1; paragraphs 0010, 0069-0072.

translating the dataset from a source schema to a target schema, each schema comprising a set of data elements and a set of relationships among the data elements, according to a set of mapping rules, each rule comprising a type and instructions for

obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among data elements used by the function – pars. 0003, 0009, 0011-0012, 14-15, 0068, and 0098.

queuing the translated dataset in persistent storage; and sending the translated dataset from the persistent storage to a destination data system – fig. 14, items 327-331; pars. 0100-0101.

2. Vedula et al. anticipated claim 3 by the following:

wherein the dataset comprises an XML document – pars. 0032, 0072.

3. Vedula et al. anticipated claims 4-5 by the following:

wherein the instructions of each mapping rule comprise a computer program; wherein the computer program comprises a Java program – pars. 0011-0015, 0019, 0085.

4. Vedula et al. anticipated claim 6 by the following:

wherein the computer program refers only methods of the Java String class – par. 0015.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vedula et al. (US 2005/0015732), and further in view of Walker (US 2004/0015840).
6. As per claim 2 and 29, Vedula et al. do not explicitly disclose assigning a key to each new request. However, Walker teaches mechanism for converting between java classes and XML – the title. Walker also teaches translating between java classes and xml data – par. 0025. Walker teaches keys, requests, and class types – pars. 0057, 0060, 0091, 0107. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Walker's teaching in order to store and retrieve dataset efficiently based on the request/translated dataset key.

7. Claims 7-8, 14-15, 18-26, 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vedula et al. (US 2005/0015732), and further in view of Alao et al. (US 2002/0108121).

8. As per claims 7, 30, Vedula et al. do not explicitly disclose an ACK from the destination system. However, Alao et al. teach "service gateway for interactive television" – the title. Alao et al. teach: "the service gateway provides asymmetrical routing, data compression and encryption to optimize client processing power and communication link bandwidth. The service gateway enables content translation between clients and service providers." – the abstract; content translations – pars. 0028, 0129, 0139, 0142, 0152, 0164-0166. Alao et al. teach waiting a set period of time to receive an ACK from the destination system; retrying to send translated dataset to destination system a set number of times – pars. 0040, 0079, 0082-0083, 0088, 0090; signaling an error if ACK is not received – pars. 0092, 0105; upon receipt of ACK, removing translated dataset from persistent memory – pars. 0059, 0067, 0097, 0102, and 0179. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's teaching in order to allow the transmitting of translated data processed sufficiently and successfully by checking on ACKs to make sure the destination systems get the data they suppose to get.

9. As per claim 8, Vedula et al. do not explicitly disclose a finite number of pre-specified rule types. However, Alao et al. teach wherein there are a finite number of pre-specified rule types that are defined generally for XML documents – pars. 0070, 0146, 0150, 0197. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's

teaching to allow a set number of rule types so that datasets between systems can be translated according to.

10. As per claims 14-15, 32, Vedula et al. teach receiving a neutral dataset, wherein the neutral dataset is an XML document – fig. 1; paragraphs 0010, 0069-0072; translating the neutral dataset to a first destination dataset according to a destination schema - pars. 0003, 0009, 0011-0012, 14-15, 0068, and 0098; if the neutral dataset has certain specified data values, reading from the destination database a second destination dataset – par. 0075; modifying the first destination dataset according to information in the second destination dataset – pars. 0017, 0080, 0084-0085; transmitting the first destination dataset to the destination database - fig. 14, items 327-331; pars. 0100-0101. Vedula et al. do not explicitly disclose acknowledging a successful transmission of the destination dataset. However, Alao et al. teach "service gateway for interactive television" – the title. Alao et al. teach: "the service gateway provides asymmetrical routing, data compression and encryption to optimize client processing power and communication link bandwidth. The service gateway enables content translation between clients and service providers." – the abstract; content translations – pars. 0028, 0129, 0139, 0142, 0152, 0164-0166. Alao et al. teach acknowledging a successful transmission of the destination dataset - pars. 0040, 0079, 0082-0083, 0088, 0090. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's teaching in order to allow the transmitting of translated data processed

sufficiently and successfully by checking on ACKs to make sure the destination systems get the data they suppose to get.

11. As per claim 18, Vedula et al. teach wherein the steps of translating, reading, modifying, and transmitting are performed according to a computer program that takes as input the dataset to be converted and a preset file derived from a database schema so that when the database schema changes, the computer program can be run on the modified file to accommodate the change – pars. 0011, 0016-0017, 0022, 0071-0072.

12. As per claim 19, Vedula et al. teach a component that transforms XML documents into XML documents – par. 0072. Vedula et al. do not explicitly disclose a plurality of application specific gateway components, communicatively coupled to said bridge component, each gateway transforming XML documents to and from documents in application specific formats. However, Alao et al. teach "service gateway for interactive television" – the title. Alao et al. teach: "the service gateway provides asymmetrical routing, data compression and encryption to optimize client processing power and communication link bandwidth. The service gateway enables content translation between clients and service providers." – the abstract; content translations – pars. 0028, 0129, 0139, 0142, 0152, 0164-0166. Alao et al. teach acknowledging a successful transmission of the destination dataset - pars. 0040, 0079, 0082-0083, 0088, 0090. Alao et al. teach: "a plurality of application specific

gateway components, communicatively coupled to said bridge component, each gateway transforming XML documents to and from documents in application specific formats" – pars. 0045, 0099-00100, 0139, 0146, 0150-0151, 0173-0174, 0197. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's teaching to allow data to be transformed between formats processed efficiently.

13. As per claim 20, Vedula et al. teach storing the XML documents in persistent storage - fig. 14, items 327-331; pars. 0100-0101. Vedula et al. do not explicitly disclose volatile storage. However, Alao et al. teach the gateways keep their work in volatile storage - pars. 0167, 0176-0177, 0188. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's teaching to allow data to be transformed between formats processed efficiently.

14. As per claims 21-22, Vedula et al. teach an interface for mapping a source schema to a target schema – par. 0011; the bridge transforms XML documents according to a set of mapping rules - pars. 0009, 0011-0012, 14-15, 0068, and 0098; interface may provide links to other sources of function objects such as web pages – par. 0082. Vedula et al. do not explicitly disclose a web administrative interface communicatively accessible by means of a browser. However, Alao et al. teach a web administrative interface communicatively accessible by means of a browser –

pars. 0174, 0177, 0189-0190, 0192. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Alao's teaching in order to take advantage of the standard web-based interface, which can be accessed by a number of systems.

15. As per claim 23, Vedula et al. teach wherein the each mapping rule comprises a type and instructions for obtaining one or more target data element values as a function of one or more source data element values, the type containing all the information about relationships among data elements used by the function - pars.

16. Vedula et al. anticipated claims 24-25 by the following:
wherein the instructions of each mapping rule comprise a computer program; wherein the computer program comprises a Java program – pars. 0011-0015, 0019, 0085.

17. As per claim 26, Vedula et al. teach a set of mapping rules/indicia – pars. 0011-0012, 0016-0017; translate an XML to XML according to the mapping indicia - pars. 0003, 0009, 0011-0012, 14-15, 0068, and 0098.
a persistent memory device, communicatively coupled to said XML to XML translator - fig. 14, items 327-331, pars. 0100-0101; an interface communicatively coupled to said XML to XML translator - par. 0011. Vedula et al. do not explicitly disclose an XML parser. However, Alao et al. teach an XML parser – pars. 0036, 0135, 0183, 0186, 0191. Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention to combine Vedula et al.'s teaching with Alao's teaching in order to help the XML translator work quicker and more efficiently because the source XML documents are preprocesses in some fashion, thus, provide the translator with the XML information in a form that is easier to work with.

18. Claims 10-13 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vedula et al. (US 2005/0015732), and further in view of Williams (US 6591272).

19. As per claim 10, and 31, Vedula et al. teach converting source dataset to a neutral dataset according to a source schema – pars. 0009, 0068, 0071-0072; sending the neutral dataset to a destination via a network interface – pars. 0008, 0067, 0100. Vedula et al. do not explicitly disclose scanning a database for outgoing requests. However, Williams teaches "method and apparatus to make and transmit objects from a database on a server computer to a client computer" – the title; data schemas and translating of data objects into desired data objects – col. 4, lines 48-59; col. 7, lines 27-51; scanning a database - col. 10, lines 3-17; col. 22, lines 7-9; col. 35, lines 4-15. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Willams' teaching in order to efficiently and quickly read requests from a database.

20. Williams anticipated claim 11 by the following:

wherein the neutral dataset is an XML document – pars. 0009, 0068, 0071.

21. As per claim 12, Williams does not disclose wherein the source dataset is an SQL result-set. However, Williams teaches source dataset is an SQL result-set – col. 5, 1st paragraph; col. 35, lines 2-15. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula et al.'s teaching with Willams' teaching to better allow different systems to communicate with each other.

22. As per claim 13, Vedula et al. teach wherein the step of converting is performed according to a computer program that takes as input the dataset to be converted and a preset file derived from a database schema so that when the database schema changes, the computer program can be run on the modified file to accommodate the change – pars. 0016-0017, 0022, 0071.

23. Claim 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vedula et al. (US 2005/0015732), and further in view of Draper et al. (US 6581062).

24. As per claim 27, Vedula et al. do not explicitly teach an SQL to XML translator, an XML to SQL translator. However, Draper et al. teach an SQL to XML translator, an XML to SQL translator – col. 1, line 65 to col. 2, line 20; col. 7, line 17 to col. 8, line 45. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Vedula's teaching with Dungan et al.'s teaching in order to allow communications between different computer systems (XML and SQL).

25. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vedula et al. (US 2005/0015732), and further in view of Dungan et al. (USP 6363411).

26. As per claim 16-17, Vedula et al. do not explicitly suggest null data values. However, Dungan et al. teach "intelligent network" – the title. Dungan et al. teach replacing null data values in the first dataset with corresponding data values from the second destination dataset, the correspondence being pre-specified constant values – col. 46, lines 8-65; col. 110, line 25 to col. 111, line 35. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Dungan et al.'s teaching with Vedula's teaching in order to better provide services to users.

Allowable Subject Matter

27. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LINH BLACK

Vinh Black

Examiner
Art Unit 2167

June 20, 2005

Luke S Wassum
Primary Examiner